

Noise

Human Health Risk	L
Ecological Risk	M - L
Socioeconomic Risk	M

While noise is generally described as “unwanted” sound, excessive exposure to sound, regardless of desirability, can produce various physiological and psychological effects in both humans and animals. Workplace exposures to noise and personal exposures that are at least partially within the control of the individual are excluded from this analysis. As a result, the primary sources of concern are vehicle, railroad, and aircraft traffic noise, along with airports and highways.

What's at risk?

The entire population is exposed to some extent. Individuals living along transportation corridors or near airports constitute a population of concern, but these numbers have not been quantified. People with irregular sleeping habits, such as shift workers, and those with medical conditions that affect sleep are particularly vulnerable. Nesting shorebirds in the vicinity of heliports and airports are also impacted by excessive noise. Overflight noise affects special use lands, river corridors, beaches, forests, and wetlands totaling approximately 1.5 million acres.

What are the human health impacts in New Jersey?

There is a lack of data regarding the number of people exposed to excess noise and the magnitude of health effects that may be experienced as a result of exposure. Human health effects potentially include hearing loss, sleep disturbance, and effects on the cardiovascular system (e.g., blood pressure). The number of people exposed to excessive transportation noise has not been quantified. Likewise, the number of sleep-compromised individuals or otherwise vulnerable subgroups would be extremely difficult to estimate reliably. Excluding workplace and voluntary exposures, the remaining effects from environmental noise are minor and reversible.

What are the ecological impacts in New Jersey?

Animals also suffer from the effects of loud noise. Nesting birds exposed to heavy aircraft and helicopter traffic have been observed evacuating their nesting sites and fighting among themselves—

abnormal behaviors that can affect reproductive success. There is little research that describes the extent of exposure or magnitude of effects in wildlife, including on the bird and aquatic wildlife impact of oceanic (ships; underwater broadcasts) and jet-ski noise. (The Ecological TWG produced two noise analyses, for overflights and watercraft, respectively.

What are the socioeconomic impacts in New Jersey?

Negative perceptions associated with noise are reflected in lower property values near airports. Estimated loss of property value due to the NY/NJ air transportation hub alone is nearly \$25 billion. Additional property damages due to ground sources of traffic noise may bring the total to as much as \$38 billion statewide.

What's being done?

There are significant controls in place to curb noise levels. Vehicles are required to comply with noise standards, noise ordinances are intended to keep environmental sources of noise down to acceptable levels, and New Jersey is second only to California in spending on noise barrier walls along its highways.